

AMENDMENTS TO THE DRAWINGS:

Fig. 9 has been amended with the legend "Prior Art" to indicate that it is prior art.

REMARKS

I. Introduction

In response to the pending Office Action, Applicant has cancelled claims 12-30, without prejudice, and amended claims 1, 4 and 9 in order to overcome the § 112 rejections and to further clarify the subject matter of the present invention. Furthermore, Applicant has added new claims 31-36. Support for claim 31 may be found, for example, on page 13, lines 10-17 of the specification. Support for claim 32 may be found, for example, on page 16, lines 12-16 of the specification. Support for claims 33 and 34 may be found, for example, on page 18, lines 14-22 of the specification. Support for claim 35 may be found, for example, on page 21, lines 8-14 of the specification. Support for claim 36 may be found, for example, in amended claim 1. Applicant has also amended portions of the specification to overcome minor informalities objected to and has amended Fig. 9 of the drawings to indicate that it is prior art. No new matter has been added.

For the reasons set forth below, Applicant respectfully submits that all pending claims are patentable over the cited prior art.

II. The Rejection Of Claims 1 and 3-5 Under 35 U.S.C. § 102

Claims 1 and 3-5 were rejected under 35 U.S.C. § 102(b) as being anticipated by Yagi (JP 2001-316869). Applicant respectfully submits that Yagi fails to anticipate the pending claims for at least the following reasons.

With regard to the present invention, amended claim 1 recites a method for plating a substrate comprising the steps of: rotating the substrate in a plating solution at a first speed of

rotation and thereby removing a bubble adsorbed to the substrate; and after the step of removing the bubble, rotating the substrate in the plating solution at a second speed of rotation lower than the first speed of rotation and thereby performing an electrolytic plating process with respect to the substrate, wherein the electrolytic plating process is performed with a surface of the substrate to be plated faced downward and the substrate immersed in the plating solution.

Yagi teaches a method of plating a substrate comprising a step of rotating the substrate in the plating solution at a first speed of rotation (20-60 rpm, see paragraph [0026] of Yagi) in order to remove a bubble. It was alleged that the substrate is consequently rotated in the plating solution at a second speed (30 rpm) which is lower than the first speed of rotation. However, the 30 rpm speed that was disclosed in paragraph [0028] was not a second speed of rotation, rather, it was the *example* for the rotation speed in the range of 20-60 rpm. Thus, 30 rpm is an example of the rotation speed for removing the bubble, not the second speed used for electrolytic plating. Yagi does discuss electrolytic plating in paragraph [0029], however, no speed for this step is mentioned. Furthermore, in paragraph [0033], Yagi discloses that the step of setting the rotation speed for the step of performing the *electrolytic plating* process is *higher* than the rotation speed in the step of *removing the bubble*. This is completely opposite to the relative rotation speeds disclosed in the present invention. Accordingly, it is clear that Yagi fails to disclose the step of rotating the substrate in a plating solution at a first speed of rotation and thereby removing a bubble adsorbed to the substrate; and after the step of removing the bubble, rotating the substrate in the plating solution at a second speed of rotation lower than the first speed of rotation and thereby performing an electrolytic plating process.

As anticipation under 35 U.S.C. § 102 requires that each element of the claim in issue be found, either expressly described or under principles of inherency, in a single prior art reference,

Kalman v. Kimberly-Clark Corp., 713 F.2d 760, 218 USPQ 781 (Fed. Cir. 1983), and at a minimum, Yagi does not disclose a method for plating a substrate that comprises all of the above mentioned steps, it is clear that Yagi does not anticipate amended claim 1 of the present invention.

Furthermore, none of the other cited references (Reid, Batz and Wang) cure the foregoing deficiencies of Yagi. In addition, as the new claims 31-35 are all dependent upon claim 1, they are all allowable over the cited prior art. Moreover, claim 36 also recites the limitation of the step of rotating the substrate in a plating solution at a first speed of rotation and thereby removing a bubble adsorbed to the substrate; and after the step of removing the bubble, rotating the substrate in the plating solution at a second speed of rotation lower than the first speed of rotation and thereby performing an electrolytic plating process. As such, claim 36 is also allowable over the cited prior art.

III. All Dependent Claims Are Allowable Because The Independent Claim From Which They Depend Is Allowable

Under Federal Circuit guidelines, a dependent claim is nonobvious if the independent claim upon which it depends is allowable because all the limitations of the independent claim are contained in the dependent claims, *Hartness International Inc. v. Simplimatic Engineering Co.*, 819 F.2d at 1100, 1108 (Fed. Cir. 1987). Accordingly, as amended claim 1 is patentable for the reasons set forth above, it is respectfully submitted that all pending dependent claims are also in condition for allowance.

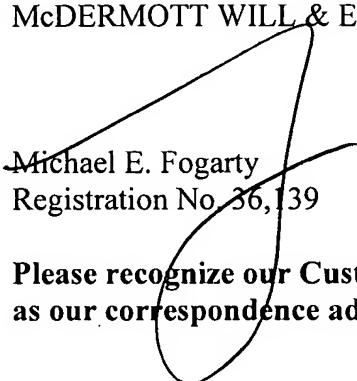
IV. Conclusion

Having fully responded to all matters raised in the Office Action, Applicant submits that all claims are in condition for allowance, an indication of which is respectfully solicited.

To the extent necessary, a petition for an extension of time under 37 C.F.R. 1.136 is hereby made. Please charge any shortage in fees due in connection with the filing of this paper, including extension of time fees, to Deposit Account 500417 and please credit any excess fees to such deposit account.

Respectfully submitted,

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